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ABSTRACT

This paper presents a status report on efforts to assess institutional effectiveness at the Community College of Pennsylvania (CCP). Part I provides a description of the methodological and procedural considerations which have guided efforts to understand institutional effectiveness. First, a description is provided of the conceptual foundation for assessment, which emphasizes examining educational effectiveness from both the student and college perspectives, understanding students' educational goals, and determining cognitive and non-cognitive outcomes for students. Next, eight positive effects of institutional research efforts are described, including the development and implementation of a set of all-college performance indicators, the design of new and continuing student goal statements, and the redesign of the program and discipline audit process. Part I concludes with challenges and future directions of CCP's assessment efforts. Part II highlights some of the major institutional strengths and concerns identified in the first 3 years of assessment, including: (1) students reported greatest progress in developing communication skills and self-confidence; (2) CCP students entered the job market with relative ease and at salaries reflective of the economic value added by the college; (3) completion of a degree did not always mean improved performance at a transfer institution, and transfer performance varied across programs; and (4) all students reported dissatisfaction with the opportunities for integration into the campus life. Finally, part III provides a framework for future efforts in examining student academic progress at CCP, focusing on Tinto's model of student attrition. This model maintains that students who are more involved in a college's academic and social life are more likely to persist and to have higher levels of personal/academic growth than less involved students. The report concludes with an application of Tinto's theoretical framework to CCP students and a future research agenda. A 17-item bibliography is included. (Author/JMC)

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INSTITUTIONAL EFFECTIVENESS: A THREE-YEAR (1985-1988) STATUS REPORT

METHODOLOGY

FINDINGS

NEXT STEPS

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Institutional Research
Report #43

September, 1988

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Preface

During the past three years, the Office of Institutional Research in collaboration with a wide range of institutional staff has begun a comprehensive look at institutional effectiveness. This paper is a status report divided into three parts:

Part I	-	A description of the methodology and procedural considerations which have guided efforts to date to understand institutional effectiveness. This part of the paper is taken from a presentation made by Thomas R. Hawk at the 1987 Annual Meeting of the Pennsylvania Community Colleges.
Part II	-	Highlights some of the key findings during the first three years of institutional effectiveness study.
Part III	-	This section, prepared by Jane Grosset, describes a comprehensive model for examining student academic progress at CCP. It provides a foundation for future studies of institutional effectiveness.

Office of
Institutional
Research

September, 1988

PART I

A METHODOLOGY FOR EXAMINING INSTITUTIONAL EFFECTIVENESS

INTRODUCTION

The purpose of this section is to describe an institutional assessment program in action--what we have done to begin to understand areas of institutional effectiveness and ineffectiveness. This report is very much about work in progress. After several false starts, we have started down a road which we believe will result in critical information essential to planning future institutional directions. We have already learned a great deal about institutional effectiveness. There is much more we need to know.

This presentation covers three areas:

A. How we decided that educational effectiveness should be measured at CCP including:

   - The conceptual model supporting our research;

   - Assumptions and organizational considerations which have significantly impacted on the approach being used.

B. What we are specifically doing to assess quality and some indications of institutional impacts our findings are having.

C. Challenges we have encountered and some future directions that we hope to take.

The October, 1986 ETS Invitational Conference on "Assessing the Outcomes of Higher Education" did a remarkably comprehensive job of summarizing the leadership and research issues which must be resolved to do an effective job of assessing institutional performance. The Proceedings[1] address several of the following issues in more detail.

HOW WE DECIDED TO BEGIN TO ASSESS EDUCATIONAL EFFECTIVENESS

One of the challenges in starting an effectiveness assessment initiative is the varying notions which different constituents have about effectiveness. Examples of areas where effectiveness measures can be collected include:

Financial Effectiveness (program cost, faculty credit hour productivity, average class size, indirect cost containment, etc.)

Enrollment Effectiveness (ability to achieve enrollment targets, extent to which programs reach all appropriate populations in service area)

Community Impact (economic impact on community, e.g., contribution to local GNP, extent to which employer manpower needs are met, employer assessment of program quality)

Educational Effectiveness-Institutional Perspective - (Are institutional expectations for exiting students in areas such as basic skills, general education, and program specific competencies being achieved?)

Educational Effectiveness - Student Perspective - (Are students leaving the institution having achieved the educational and personal goals they had when they enrolled at the college?)

In 1985, CCP's President, Judith Eaton, appointed an ad hoc task force charged to look comprehensively at issues of educational effectiveness. We were to begin a series of studies which would provide a basis of understanding of institutional strengths and weaknesses, and would point toward ways that institutional effectiveness could be enhanced. After a series of extended (and painful) discussions, we determined that institutional assessment would be guided by the following principles:

Principle 1. A primary emphasis would be placed on educational effectiveness examined from both the College's and the students' perspective.

Principle 2. A significant effort would be placed on understanding students' educational goals at the time they first enrolled, and in understanding how they changed while they were at the College. Effectiveness would then be assessed in part based upon the relationship between students' educational goals and what they achieved.

Principle 3. Educational effectiveness studies would focus on both cognitive and non-cognitive outcomes for students.

- We felt that growth in the areas such as self-concept and the development of independent learning capabilities were as important to know about as cognitive development in generic skills and academic disciplines.

Principle 4. Measures of educational effectiveness would be analyzed and reported by student subpopulation

with the expectation that, to be effective as an institution, we would not have to have the same performance for all student groups.

- An easy example of this was the expectation that the percentage of students successfully transferring from our Engineering Science program would be higher than that from our Office Administration program and vice versa for post-CCP employment.

- A more difficult, and still somewhat unresolved, issue was associated with effectiveness measures for students who enter the College via one of our pre-College developmental programs. These students are more likely than others to have enrollment goals that are inconsistent with abilities. Thus, their goals may not always be appropriate as a standard for measuring institution's effectiveness. Further, there is not complete consensus within the institution about the College's expectations for remedial students. Stated somewhat simply--Is our primary goal to prepare students to take college-level courses--or is it to give these students the educational assistance they need (in whatever form) to get on with their lives?

In general, there are a wide range of student subpopulations with unique goals and educational needs. Assessment activities need to recognize the uniqueness of these different groups.

Principle 5. Assessment efforts would proceed along several parallel, but complementary, tracks.

Track A. Creation of a series of across-the-board performance indicators that would provide common information for all programs and disciplines at the College.

- A key role for the performance indicators should be to serve as an alert mechanism to identify areas of the College where further assessment is warranted.

Track B. Significant improvement to the periodic program and discipline evaluation process.

- One of the primary emphases has been on creating an evaluation process with substantial departmental faculty involvement in identifying, researching, and making recommendations on critical issues related to institutional effectiveness.

Track C. Institutional Research studies to describe the effectiveness of the College in a number of key areas. Examples of some research issues we are currently working on or have completed include:

- Factors contributing to student retention and non-retention;
- Contributions of the College to student growth in selected cognitive and non-cognitive areas;
- Relative effectiveness of various components of the College's educational programs and student services from a current and former student perspective;
- Student goal achievement patterns;
- Student transfer outcomes at Temple University.

Track D. Classroom-based research that focuses on the effectiveness of the individual teacher.

- Patricia Cross, at the ETS Conference, argued forcefully for classroom-based assessment as an essential complement to institutional assessment.
- Understandably, there is not yet a broad institutional commitment to classroom-based assessment. Many faculty are concerned about allowing researchers into their classroom because of its potentially obtrusive nature and/or because it may appear to be evaluative in nature. However, at CCP, several smaller-scale initiatives have demonstrated that, under ideal conditions, faculty members are willing to look critically at their instructional approaches and modify them based upon an honest assessment of student experiences in the classroom.

  A critical characteristic of all classroom-based assessment activities has been that they were largely initiated by concerned faculty who, in turn, encouraged other faculty to participation. Institutional Research has been involved only to the extent of providing technical assistance upon request.

Principle 6. Our final principle related to methodology. We believed the methodology should be manageable and result in timely information. Two technical considerations have been important in our assessment efforts.

First. We are giving significant weight to student judgments of educational effectiveness. As the ultimate beneficiaries (or victims) of our programs, we believe the students have critical information to give us about our effectiveness.

Second. We believe that cross-sectional studies, where we look simultaneously at attitudes and outcomes of student cohorts at various stages in their education, can provide meaningful information. Longitudinal studies, where one group of students is studied over time, are important and sometimes more compelling in the richness of information they provide--but the timeliness and usefulness of information available from cross-sectional approaches make them important to our efforts.

WHAT HAVE WE ACTUALLY DONE TO DATE AND SOME INSTITUTIONAL IMPACTS FROM OUR EFFORTS

A. Developed and implemented a set of all-college performance indicators

This activity has facilitated the program evaluation process by providing a common data base and has helped to identify critical trends at the discipline or program level that require special scrutiny and/or further analysis. Based upon institutional experience and reactions in using these indicators, they will be modified and/or expanded.

B. Designed and implemented a new student goal statement as well as introduced a continuing student goal statement

This has identified the types of enrollment goals which students are able to achieve and pointed to other areas where student progress has been less satisfactory. It has provided a firmer basis on which to assess student outcomes, e.g., students enrolling to take a few courses at the request of an employer

should not be expected to graduate. It has also emphasized the importance which CCP students attach to the out-of-classroom and social dimensions of their educational experience.

A reasonable criticism of student goal data has been the lack of validation of student response by professional staff which results in some students having aberrant responses. New student flow systems will provide a methodology to deal with this issue. However, Institutional Research has been able to confirm the validity of the overall student response patterns, if not the reliability of individual cases.

C. Undertaken a general education assessment for a cross-section of CCP students

This effort demonstrated faculty willingness to participate in a general testing program and highlighted some areas of the College's general education experience which appears to be relatively weak (e.g., general knowledge in the Humanities).

D. Assessed student gains in the area of self-concept

Consistent with other research, this study demonstrated the importance of placing students in a structured, curricular experience with close faculty ties, if student growth in non-cognitive areas is to be strongly encouraged.

E. Redesigned the program and discipline audit process

The audits have become formative as opposed to summative in nature and are intended to look critically at needed curricular and instructional changes, as opposed to being largely summative and self-applauding in nature.

F. Constructed a comprehensive Retention Data Base which contains a wide range of demographic, entering characteristics, and academic performance data on every student enrolling at the College on- and off-campus during the last eight years.

- With this data base, we can now unambiguously describe the academic progress of all students term by term, including off-campus, continuing-education students for whom historically we have had limited information.

- The data base makes it possible for us to load a rich set of variables for all respondents to survey research so that we look at the relationships between entering goals, race, sex, SES, remedial program status, etc., and educational outcomes. This is important to us because of the increasing emphasis we are placing on why something happened as opposed to just what happened. The data set is appropriate for causal modeling techniques such as path analysis and Lisrel.

G. Initiated a current student survey and redesigned the former student surveys to gather much more detailed information on students' progress toward accomplishment of their goals for enrolling at the College, and to have a more detailed student assessment of various aspects of the College.

For a range of student subpopulations, we have identified components of the institution that are relatively less effective. This, in turn, has helped to describe priorities for strengthening curricula and support services.

H. In collaboration with Temple University, undertaken a major study of transfer experiences at Temple of former CCP students.

This study included data on 1,696 former CCP students who transferred to Temple during a six year period from Fall, 1979 to Fall, 1985. The study looked at the relationships between student backgrounds, programs of study, and academic performance at CCP with subsequent transfer experiences at CCP. While the study findings are largely positive about the successful transfer experiences of CCP students, a number of issues related to the adequacy of transfer education at CCP were raised.

III. CONTINUING CHALLENGES IN ASSESSING INSTITUTIONAL EFFECTIVENESS

Russell Edgerton, President of AAHE, at the 1986 ETS Invitational Conference, stressed the long road that has to be followed to design and implement a meaningful institutional assessment model. As he said, "The quick fix just isn't in the cards." When CCP began its efforts to understand institutional effectiveness over three years ago, we:

- underestimated the measurement complexity of some of the effectiveness dimensions we wanted to explore;
- underestimated the technical complexities associated with installing and accessing a large complex longitudinal data base;
- overestimated the degree of sophistication at other colleges and universities that we thought we could turn to for help;
- overestimated the amount of interest our non-research-oriented colleagues would have in our efforts to improve our understanding of institutional effectiveness.

We realize now that we are involved in a long-term project where each set of research findings will raise new questions and point the way to additional research initiatives.

There are several considerations which we believe are fundamental to the successful implementation of an institutional effectiveness assessment effort:

1. Strong interest, support, and conceptual collaboration from the President have been critical in sustaining this assessment effort. Undertaking a comprehensive institutional assessment project has required a significant commitment of staff time and resources without any immediate tangible results. Patience and a tolerance for ambiguous information have been fundamental to getting through the first years of this institutional assessment program.

2. An assessment process needs to balance the positives and the negatives. It is important that the assessment efforts be designed to look honestly at institutional deficiencies, but they should also provide a vehicle for highlighting institutional strengths and accomplishments. Deciding on the balance between these two perspectives is an important ongoing consideration in developing an assessment model.

3. To the extent possible, research methodologies should focus on attempting to establish causal relationships

as opposed to simply describing what happened. Possible approaches to strengthening curricula and services at the College should become apparent from the assessment data.

4. As the College develops and refines its expectations for students in higher order academic skills such as critical literacy, it is important that the expectations be stated in such a way that they are realistic and measurable. All too frequently we are guilty of stating educational niceties as our goals with little or no attention paid to how these vague goals would be incorporated into curricular design and assessment strategies. We need to avoid the "if we say it's important, we must be doing it" syndrome.

5. A meaningful implementation of an institutional assessment process requires the support of staff and faculty if the results are to make a difference in institutional decision making. However, in designing institutional change strategies with respect to quality assessment, many faculty and staff are more effective in a reacting mode than they are in a role of initially creating the process. In this first phase, the Office of Institutional Research has played a leadership role in suggesting assessment strategies. A number of faculty and staff have been instrumental in helping to design current strategies. A continuing challenge is to identify appropriate junctures for expanded involvement in a way that allows good ideas to be captured and encourages ownership in the findings.

With our work to date, we feel we have laid a foundation for a meaningful institutional effectiveness assessment program. What we are able to build upon this foundation, and what our ultimate institutional impact turns out to be will very much depend on how well we resolve some of these latter issues.

1) Published in 1987 by the Educational Testing Service. This document is entitled Assessing the Outcomes of Higher Education. Copies should be requested from ETS, Princeton, NJ, 08541.

PART II

AN OUTLINE OF MAJOR CONCLUSIONS FROM THE COLLEGE'S EFFECTIVENESS STUDIES 1985-1988

Within the contexts of national research findings and student expressions of satisfaction, as well as tangible evidence of positive student outcomes, the College has been found to be a successful institution in its service to a wide variety of student cohorts. The many studies that have been undertaken suggest that, with some very important qualifications, both the students and the College's educational goals for its students are being achieved. Nonetheless, within this broad sense of institutional accomplishment, there are a number of findings both positive and negative which stand out and deserve to be commented on as key relationships developing from our institutional effective studies.

Institutional Strengths

1. Students who leave the College are generally satisfied with their overall experience. They give high marks to the College's instructional programs, their relationships with faculty, and to the economic mobility which the College has afforded them. Many report their lives are fundamentally changed by their experiences at the College.

2. At a time when the transfer role of community colleges is seriously under question, CCP has maintained and supported this function well. Transfer rates exceed norms reported in any national studies. The great majority of students experience academic success when they transfer. The loss of credits is usually minimal for students who pursue studies at four-year colleges consistent with their program of study at CCP.

3. Students who chose to enter the job market following CCP do so with relative ease and at entering salaries that are both acceptable and reflective of a significant economic value added by the College. Immediate employment outcomes following CCP are strongly influenced by the students' choice of programs while at the College, with predictable differences among students enrolled in the various program areas, e.g., Allied Health Program graduates earn more initially than do Human Services Program graduates. The great majority of students report a significant relationship between their study at CCP and their eventual job performance. (In interpreting employment outcomes over the last few years, it is important to remember that the Philadelphia area has enjoyed a period of remarkable economic robustness, creating

significant employment opportunities in some fields, where only a few years before, students were encountering more difficulty in finding employment.)

4. Students have many and diverse expectations of how they will benefit from their CCP enrollment, including expectations related to personal and social development. Overall, students reported greatest progress in developing communication skills, meeting new and interesting people, developing self-confidence, and an openness to new ideas. Students, who continued enrollment at CCP into their sophomore year, were most likely to cite progress in improving their socio-economic status, developing clearer career goals, and increasing self-confidence.

5. Many of the students enrolling at CCP with significant developmental education needs are eventually successful in completing College-level studies. There is compelling evidence that the wide range of special academic programs and services offered to developmental students significantly impact on their retention and academic success at CCP.

Institutional Concerns

However, this general picture of institutional health and strength notwithstanding, there are a number of fundamental issues which emerge in the institutional effectiveness studies which suggest ways that the College could be strengthened.

1. Despite the successful transfer of a high percentage of the College's former students, there are a number of transfer issues which need to be examined. Completion of CCP's degree does not always bring with it an expectation of improved performance at the transfer institution. Transfer performance varies across CCP programmatic clusters, with students from some programmatic areas experiencing significantly more difficulty in transferring than students do in other areas. This is especially true for students in career programs. Students in career programs appear to require academic program structures, guidance, and support services that are responsive to students with both career and transfer objectives. When transferring, they experience a greater loss of credit and have a reduced probability of graduating with a bachelor's degree. The inconsistent loss of credits by students, even those in the same programs, suggests that transfer advising is not uniformly occurring across the College. This is evidenced by the lack of satisfaction expressed by some categories of students with transfer advising. A significant percentage of students encountered difficulty with their

communications skills upon transfer as evidenced by both their own reported sense of lack of progress in developing writing and oral skills and their performance on writing placement tests at Temple University.

2. Across almost all measures of student performance, minority students, especially Blacks and Hispanics, have less success. This is reflected in their placement in dropped for poor progress and academic standard status, graduation rates, completion rates of critical general education courses, self-reported progress on a number of critical institutional goals, withdrawal rates from courses, and post-CCP employment experiences. Minority students with an Asian background displayed very different outcome patterns. Their major academic deficiency was in the area of written communication skills. They were, by far, the most focused student subgroup with regard to goals and intentions and were the group most likely to plan to transfer.

3. In many respects, sophomore students are less satisfied with their experience at CCP than freshmen. This is reflected in their evaluation of the College's programs and services; their reported lack of progress on a number of key institutional goals such as ability to critically evaluate ideas; and their frustration with opportunities for out-of-classroom experiences at CCP and, ultimately, may be implicated in their lack of retention at the College.

4. To date in institutional research findings, there has been little evidence developed that supports clear student advantages to earning a CCP degree beyond those achieved by students who enrolled at CCP for a significant number of credits but elect not to graduate. Few differences have been found for graduates and nongraduates (who earn a significant number of credits at CCP) in transfer outcomes including transfer grade point averages or graduation from the baccalaureate institution. With respect to career outcomes, reported salaries and the relationship of jobs to CCP program of study are similar for both groups. (There are some career program areas--most notably Allied Health--where these comments do not apply.) There is, of course, no guarantee that non-graduating students have fulfilled the College's general education expectations.

5. All students report dissatisfaction with the opportunities for social integration with the institution. They expressed a desire for more involvement in activities as well as for informal gathering places to interact with other students. Even students who are in small-cloistered programmatic environments, where academic success at CCP as well as post-CCP outcomes in many respects tends to be enhanced, report dissatisfaction with the lack of social experiences at the College.

6. While the structured, close-knit programmatic experiences offered in some areas at CCP promote retention and academic success at CCP, this programmatic experience is not always associated with academic success upon transfer, nor associated with overall student satisfaction. It is possible that the uni-dimensional experiences in some of the tightly-confined curricular experiences may not be addressing all aspects of student development that are conducive to maximizing their satisfaction while at CCP or their ultimate transfer success. The College may not be adequately preparing some students for the required level of independence and self-direction required at large, four-year colleges.

7. There is significant variability across race in both students' reasons for enrolling at CCP and expectations for their college experience. These findings, coupled with the tremendous variances in performance, support the potential gains that may result from retention and academic success initiatives focused upon specific minority groups.

8. Student usage of support services are often not consistent with student goal expectations. More of an effort is required to encourage students to utilize appropriate institutional supports that can assist in the achievement of their enrollment goals.

9. The College's remedial and developmental programs are playing a crucial role in preparing a significant number of students who are eventually able to go on and complete college-level studies. However, for those students who do not successfully complete a significant percentage of college-level courses, there is currently a lack of evidence which suggests that they have been well-served by the current programmatic offerings.

10. A number of recent studies suggest that many students would benefit and appreciate a strengthening of the general education experience offered at the College. Many students report a lack of progress, especially in the sophomore year, toward the accomplishment of general education goals such as the improvement of communication skills. Furthermore, standardized testing results as well as an examination of student success in general education courses indicated deficiencies in this area. A sample of CCP sophomores tested below sophomores at other community colleges in one assessment activity utilizing a national test program. Humanities was the weakest area of student development, followed by the areas of science, social sciences, literacy and math. Possible student weakness in basic skills was suggested by an analysis of former student performances on Temple's placement tests.

11. CCP appears to be doing a better job in preparing students for transfer than in the area of career readiness. While large numbers of students find employment after leaving CCP, a small, but significant, percentage are unemployed but actively seeking a job, or are employed outside their field of study. Not surprisingly, students from the transfer and the General Studies curricula are less likely to find education-related jobs and generally earn lower salaries than students in career programs. Just as we need to intercede with career students who plan to transfer, we may need to provide better support to transfer students who decide to work following CCP.

We continue to know more about on-campus students than we know about those enroll off-campus. Students who enroll in the Community Services Division generally continue taking Community Services courses and rarely enroll on campus. Outcomes associated with these students are generally quite distinct from students enrolled on campus. They receive better grades and are less likely to withdraw from courses. Transfer outcomes, such as grade point averages and graduation from the four-year school, are generally superior to Main Campus students as is their academic performance while at CCP. However, in terms of multi-term retention and persistence, they remain at the College for a much shorter period of time. This appears to reflect both different student goals and lack of programmatic opportunity at off-campus locations.

A majority of CCP outcome studies have been focused, to date, on students completing 12 credits or more. This approach has been based upon the assumption that, significant impacts could not reasonably be attributed to CCP for students who completed fewer credits at CCP. Unfortunately, this means we currently know little about those students who left CCP computing no or only a few credits. Because this group is large and retention is an important institutional concern--this is an important next phase for institutional effectiveness studies.

PART III

A CONCEPTUAL FRAMEWORK TO GUIDE FUTURE EFFECTIVENESS STUDIES

INTRODUCTION

It was always our intention to provide more than a documentation of success measures which characterize the current state of institutional effectiveness at CCP. Anticipating from the start that the data would suggest areas of relative ineffectiveness in institutional functioning, and that College faculty and staff would be genuinely interested in providing more effective growth opportunities for students, it became important to recast the descriptive information that was assembled into a policy-oriented framework that would provide meaningful and workable suggestions for improving institutional effectiveness.

Shotland and Mark (1985) suggest that the creation of useful social programs and policies is enhanced by the use of theoretical frameworks that focus on process variables that policymakers are able to manipulate. For our assessment, it would therefore be important to focus on institutionally controllable influences on student growth, i.e., collegiate experiences over which the College has some policy or programmatic control and which might facilitate or impede the attainment of desired educational goals.

Tinto's model of student attrition provides a useful set of guiding principles for conceptualizing potentially influential variables and processes in student growth. Numerous studies exist in the retention literature, many of which represent exemplary research projects (Bean, 1982, 1983, 1985; Pascarella and Chapman, 1983; Pascarella and Terenzini, 1980, 1983; Terenzini and Pascarella, 1977, 1978) that generally validated all or part of the model. Although the model, as designed by Tinto, explains undergraduate student attrition, several researchers (Terenzini and Wright, 1987; Theophilides, et al., 1984) have adapted it for studying institutional impact on student gains in cognitive and non-cognitive areas of development as well. This broad-based empirical support for the model is important given the diverse dimensions of effectiveness (academic progress, retention, transfer, and career outcomes) that are being measured at CCP to assess institutional effectiveness.

The model is based on the premise that if the college experience positively influences a student's academic and personal growth (as most educators purport), it is reasonable to expect that the student who is more involved in the academic and social life of the college will both be retained with greater probability and experience personal growth more than a less involved student.

The conceptual framework of the model is complex and a detailed discussion of it follows. Given its roots, this presentation centers on the model's application in the area of student retention; however, the reader is reminded that the other effectiveness measures can be substituted as the outcome variable.

Tinto's Model of Student Attrition

Tinto views the dynamics of attrition from an interactionist's perspective. Colleges are like other human communities and student departure is a reflection of both the attributes and actions of the individual and those of the other members of the community with whom the individual interacts. As such, Tinto believes that retention rates serve as an indicator of institutional quality and health, and that retention studies reveal much about the character and problems within a college.

The model purports that two factors are the primary causes of individual withdrawal from college: personal attributes of students which predispose them to respond to given situations or conditions with particular forms of behaviors, and the nature of student interactional experiences within the institution following entry.

Two categories of personal attributes which predispose some students toward departure are intentions and commitments. Intentions are aspirations, most often stated in terms of educational and occupational goals, toward which individual activities are directed. Commitments represent important aspects of personality which incline a person toward completion of tasks once begun. It is important to consider student commitment to both their educational goal(s) and their commitment to a specific institution.

Students enter college with intentions and commitments which set the limits of their educational attainment and influence their experiences within the college. Intentions and commitments, however, are subject to change. Over time, they reflect the character of student experiences within the institution. Though prior student intentions and commitments may lead directly to departure from college, Tinto assumes their principle impact is contingent on the quality of student interactions with other members of the institution following entry and on the students' assessment of the degree to which those interactional experiences meet his or her needs and interests.

This concept of student-institutional fit is central to the model. Tinto believes that integration is an important interactional outcome that arises from an individual's experiences within the institution. Integration is the degree to

which intellectual and social experiences within the institution assimilate students into the intellectual and social life of the institution. Theoretically, for two students with similar intentions or goals and the same levels of initial commitments, a higher degree of integration into the college systems for one would mean greater subsequent educational goal and institutional commitment.

Absence of integration arises from two sources: incongruence and isolation. Incongruence results from a mismatch between the abilities, skills and interests of the student, and the demands and opportunities of the academic and social systems of the college. Isolation occurs where there is an absence of sufficient contact between the student and other members of the social and academic communities of the college. Tinto views some level of incongruence-related institutional departure as inevitable. On the other hand, he feels isolation-related departure need not occur.

Although the model assumes that the decision to withdraw is largely the result of events which take place within the institution following the student's entry, Tinto believes it also reflects the pre-entry attributes and skills of students and the pressure of external student commitments. The model therefore includes several categories of variables: pre-entry attributes, initial goals and commitments, academic integration, social integration, and later goals and commitments. Tinto causally links these variable categories in a longitudinal fashion. The hypothesized flow of events and their direct and indirect impacts are indicated by the arrows that appear in Figure 1.

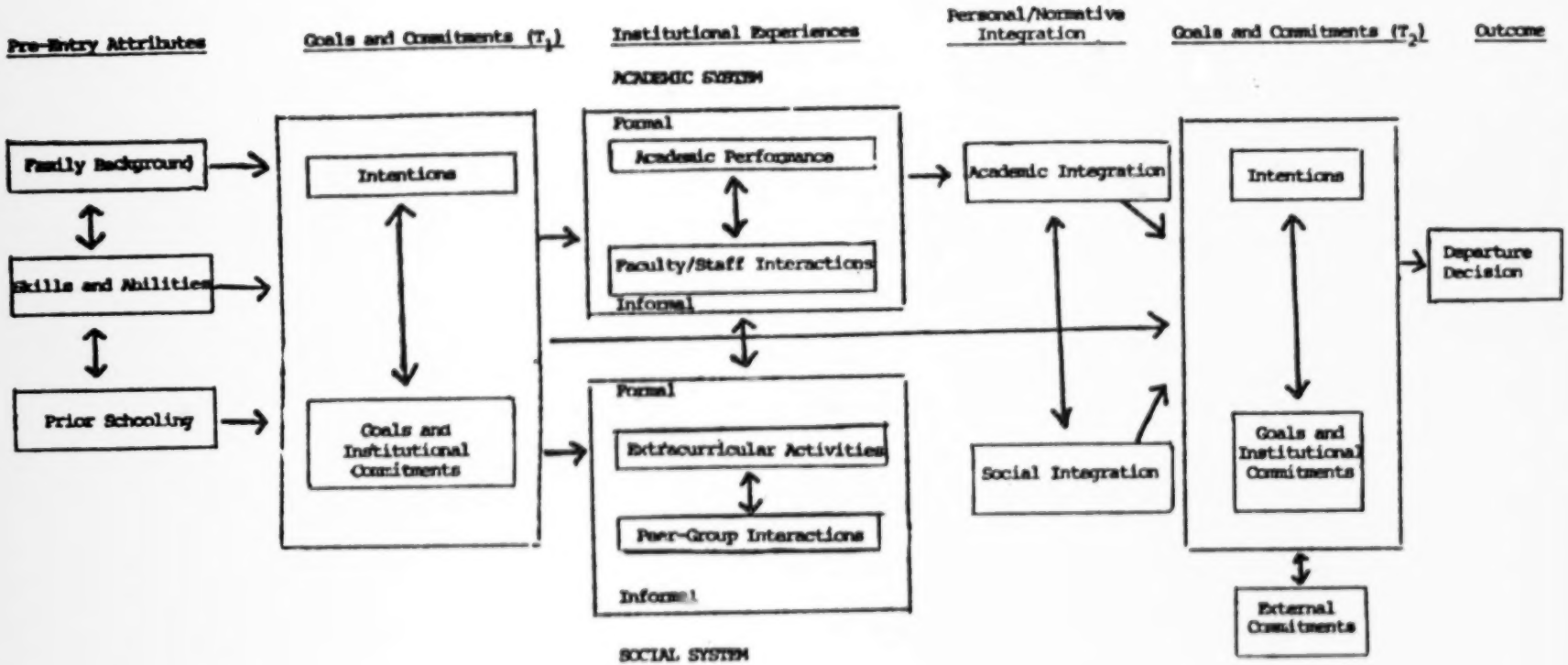
Student pre-entry characteristics include measures related to family and community background, intellectual and social skills, and varying types of pre-college educational experiences and achievements. These background characteristics interact with each other, as indicated by the directional flow implied by the arrows in Figure 1, and influence the ways in which students interact with the college environment by directly effecting initial intentions and commitments.

Student intentions and commitments, in turn, directly effect the subsequent interactions between the student and other members of the institution. It is through these interactions with the environment that students become integrated to varying degrees into the system both academically and socially.

The academic system of the college centers around the activities that are concerned with the formal education of students. It involves faculty and staff who are primarily responsible for the training of students.

The social system centers about the daily life and personal needs of the various members of the institution. It includes interactions among students, faculty and staff, which take place outside of the academic domain of the college.

A MODEL OF INSTITUTIONAL DEPARTURE



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A Model of Institutional Departure

Source: Derived from Tinto, V., "Drop Out from Education," Review of Educational Research, 1975, 45(1), 89-125

The model distinguishes between the formal and informal aspects of each system. The formal social system of the college represents structured, extracurricular activities, while the informal system includes the day-to-day casual activities among the members of the college. Classrooms and laboratories set the boundaries of the formal academic domain of the institution, while informal academic interactions occur outside the formal instructional setting.

It is assumed that these student interactions in the academic and social systems of the college continually act to modify their goal and institutional commitments in ways which lead to persistence or dropping out. The experiences of students in each system may have quite separate effects upon their persistence or withdrawal from the institution. For example, in the academic system, initial goal commitment leads to higher grade performance and intellectual development; which leads, in turn, to academic integration; which, in a circular fashion, leads to even greater goal commitment. In turn, goal commitment reduces the likelihood of dropping out. In the social system, institutional commitment is expected to produce peer group and faculty interaction; which leads to social integration; which, in turn, increases institutional commitment. This is also expected to reduce the likelihood of dropping out.

Since intentions and commitments are not assumed to be fixed, they appear twice in the model. Their first appearance is the product of pre-entry characteristics, while the second appearance of these variables is assumed to be the product of academic and social experiences.

The model does not argue that full integration in both systems of the college is necessary for persistence. Nor does it claim that failure to be integrated in either system necessarily leads to departure. Rather it purports that some degree of social and intellectual integration must exist as a condition for continued persistence. A mutually compensatory relationship is hypothesized between social and academic integration in that a low level of academic integration within a given institution may be compensated for by a corresponding high level of social integration and vice versa.

Though the model emphasizes the role of intra-institutional experiences, it does not exclude the possibility that external events can also influence individual decisions regarding departure. Social forces external to the institution may influence student decisions regarding behavior in the institutional setting. External communities including families, work settings, and peer groups may serve to counter, rather than support, participation in college communities. This is especially so when the requirements of membership in an external community are counter to those for membership in an institutional community. A form of role conflict may develop and the student

may be faced with having to choose between college participation and participation in non-college activities. The strain of such conflicts may undermine integration in college.

The model assumes that the impact of these external commitments do not directly affect the decision to drop or persist. Instead, their influence on drop decisions is observed in the students changing intentions and commitments.

Appropriateness of the Model for CCP

Many of the effectiveness results, when viewed from a correlational perspective, exhibit patterns which are consistent with the conceptual framework of the model. Much of the data appears to support the importance of the two-core concepts of academic and social integration. Consider the following set of independently-collected facts concerning CCP freshmen and sophomore student differences.

- Sophomore students reported in surveys that they were less satisfied with their overall CCP experiences, academic and social, than freshmen.

- Sophomore students in the same survey reported a lack of progress on a number of important institutional goals such as the ability to critically evaluate ideas.

- Less than half of entering students persist at CCP to achieve sophomore status (24+ cumulative registered hours).

The following set of information concerning differences in remedial student outcomes also appears to lend support to the importance of student academic and social support.

- CCP students who entered at a remedial level and participated in the College's remedial and developmental programs persevered at CCP for the same number of credits as students who entered at a college-ready level.

- Remedial-level students enrolled in support programs achieved greater levels of academic success than remedial-level students who did not receive support through CCP developmental programs.

- Students at a remedial level who did not have the support of developmental programs dropped out sooner than remedial-level students with support.

The descriptive/correlational data that have been assembled during the past several years represent one of the first steps in the evaluation of institutional effectiveness at CCP. This

effort has provided a valuable framework for future research efforts by giving insight into both the differential effectiveness across student subgroups and important institutional characteristics that may contribute to student development processes. The next steps in the evaluation of institutional effectiveness are studies that begin to examine these seemingly important factors for their degree of causal influence on student development.

Future Research Agenda

In response to institutional information needs related to the 1988-91 Strategic Plan, several potential student subgroups have been identified for study using Tinto's theoretical framework.

The issue of how the College should respond to matriculants who are not interested in earning a degree has been targeted as a Strategic Plan initiative. A subset of this student group includes those who leave CCP completing fewer than 12 credits. While prior institutional research has indicated there have been a sizeable number of former students who meet this criterion, many outcome studies have not included this student group. Consequently, much of what we know about former students is not representative of short-term enrollees, thereby creating a considerable information gap.

The differential success rates associated with minority and majority CCP students across a broad range of outcome areas has been well documented in institutional research over the last several years. Consequently, an initiative set forth in the Strategic Plan at CCP addresses the issue of how institutional efforts might be strengthened in order to encourage the enrollment and academic success of minority students. In order to approach this issue with a coherent plan, it would be helpful to better understand the nature and causes of these differences in order to develop effective reforms.

Another question raised within the framework of the Strategic Plan is how CCP should respond to the growth in numbers of potential CCP students having special-educational needs. Prior institutional research has indicated that a considerable segment of remedial-level students have benefitted from enrollment in the structured services provided by Educational Support Service (ESS) programs. However, not all remedial-level students are served successfully or at all by the ESS programs and the outcomes associated with many of these latter students fall well short of the successful end of the outcome continuum.

Future institutional research efforts will include developing and testing causal models of interrelationships among the categories of variables suggested as important by Tinto (student background, goals and commitments, academic integration, and social integration) to the process of student growth. These results will hopefully contribute to the development of institutional strategies designed to enhance institutional effectiveness for these various student subpopulations.

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